

Name: _____ Hour: _____ Parent Signature _____

Learning Set 1 & 2 Test Review

1. When Mendel crossed true-breeding tall pea plants with a true-breeding short plants what were the results of the F1 generation? Complete the Punnett square.

- ∞ What were the results of the F2 generation? Complete the Punnett square for the F2 generation.

- ∞ How do these results relate to the data received from RBWI on the crossing of Type-A red grained rice and Type-B white grained rice.

2. Write a brief definition of each of the following terms and give an example of a possible genotype for that term:

∞ heterozygous-

∞ homozygous-

∞ dominant -

∞ recessive-

∞ purebred-

∞ hybrid-

3. What are some of the differences and similarities between Huntington's disease and sickle cell anemia?

∞ Similarities-

∞ Differences-

4. A person who has the allele for cystic fibrosis, but does not have the disease is known as a _____ for that disorder. Is it possible for their offspring to inherit this disease from them? Explain.

5. If there are 90 people in a room, statistically, how many of those people would be carriers for cystic fibrosis?

6. Describe the difference between genotype and phenotype of an organism.

7. A man who is heterozygous for his connected eyebrow marries a woman who does not have connected eyebrows. What is the probability that they will have a child with connected eyebrows? Complete the Punnett square.

8. What is the probability that two cats that are heterozygous for long hair will have a kitten with short hair? Complete the Punnett square.

9. Write a brief definition of each of the following terms.

-Trait:

-Variation:

-Genetics:

-Sample:

-Staple food:

-Grain:

-Photosynthesis: